

REMARKS

Claims 1-20 are pending and claim 21 is cancelled. Certain claims are amended without prejudice or disclaimer to correct informalities and to better comply with U.S. practice. Support is found in the original claims. No new matter has been added.

The specification is amended to insert headings and reference to related PCT and German applications. No new matter has been added.

The Patent Office rejected Applicants' claims for priority, objected to the specification and rejected claims 1-20 as obvious. In view of the amendments and the following comments, reconsideration is respectfully requested.

Foreign Priority and Domestic Benefit Claims

The Examiner has rejected Applicant's claim for foreign priority based upon German application 10355461.0 filed November 27, 2003 because allegedly the U.S. application was filed more than twelve months thereafter. However, the present application is the national stage entry of a PCT application designating the U.S. (PCT/EP2004/012897) ***that was filed within one year of the German priority application.*** Namely, the PCT application was filed on November 13, 2004. Accordingly, priority is correct and acknowledgement of the acceptance of Applicant's German priority claim is requested.

The Examiner rejected Applicant's claim for domestic priority from PCT/EP04/12897 by arguing that the PCT application was not printed in English. However, 35 USC 365 does not require that the PCT application be published in English for a national stage application to claim a domestic right of priority. Furthermore, a translation into English of the PCT application was submitted on May 24, 2006. Accordingly, the present application is correctly a national stage entry of PCT/EP2004/012897 and is properly according the international filing date of November 13, 2004 for all purposes except as otherwise provided in 35 USC 102 (e). *See* 35 USC 363.

Objections to the Specification

Applicants have amended the specification to insert new paragraphs containing the headings the Examiner requested. Accordingly, the objections to the specification are believed to be moot.

Claim Rejections – 35 U.S.C. § 103

Claims 1-20 stand rejected as obvious over Stamm et al. (U.S. Patent 6,074,670) in view of Straub et al. (US 20030153610). Applicants respectfully disagree for the following reasons.

Stamm et al. concerns an immediate-release fenofibrate composition comprising “an inert hydrosoluble carrier covered with at least one layer containing a fenofibrate active ingredient in a micronized form.” Col. 3, lines 12-16. Stamm et al. does not even mention the active compound (I), also known as rivaroxaban, recited in the present claims, let alone suggest substituting rivaroxaban for fenofibrate. In fact, when Stamm et al. is read as a whole, it is evident that Stamm et al. is concerned about fenofibrate bioavailability only, as can be seen through the detailed discussion of the problems of prior fenofibrate formulations in columns 1- 2. The Patent Office does not show where Stamm et al. suggests modifying its composition or process to use another drug, let alone rivaroxaban or another anticoagulant.

The Patent Office admits that Stamm et al. does not explicitly disclose incorporating rivaroxaban into their compositions and using the resulting compositions for treatment of thromboembolic disorders. However, the Patent Office argues that such a substitution into Stamm et al. of a different compound for a different therapeutic use would have been obvious because both fenofibrate and rivaroxaban are both poorly water soluble compounds. Furthermore, the Patent Office argues that Stamm et al.’s success with fenofibrate would motivate one skilled in the art to formulate rivaroxaban in a similar manner with a reasonable expectation of success.

Yet this motivation to modify Stamm et al. relies entirely on hindsight by review of Applicant’s specification. There are a multitude of different methods in the pharmaceutical industry to formulate compositions for oral administration, and the particular method described

in Stamm et al. is only one of these methods. Neither Stamm et al. nor Straub et al. suggest that the Stamm et al. process should be modified for drugs such as rivaroxaban.

Also, there are a multitude of poorly soluble molecules that are considered for medical use. It is well known in the art that a formulation for one poorly soluble compound does not lead one to reasonably expect success with another poorly soluble compound. Stamm et al. is evidence that success cannot be so easily predicated simply on solubility because Stamm et al. teaches multiple prior references teaching fenofibrate compositions that did not solve the bioavailability problem.

Furthermore, Stamm et al. teaches that its composition acquires "high bioavailability through improved dissolution." Col. 1, lines 8-9. Yet Applicants' invention showed improved bioavailability *without* improved dissolution. Specifically, Applicants prepared rivaroxaban tablets by direct tableting without granulation (Tablet A) and by fluidized bed granulation/suspension as described in section 1.2 of the specification (Tablet B). They observed that Tablet B had a slower disintegration time in water and very similar in vitro release rates to Tablet A. At this point, if following the teachings of Stamm et al., Applicants would have been motivated to stop work, because Stamm et al. teaches that improved bioavailability is through improved dissolution. However, Applicants' bioavailability studies showed that Tablet B had marked advantages in absorption and thus about a 35% increase in bioavailability when compared to Tablet A. At the same time, a marked decrease in the variability was seen. Specification, page 11, lines 3-6, summarizing the data in tables 1 and 2. In sum, the results were not what Stamm et al. would have led one to expect.

Furthermore, the only difference between Tablet A and Tablet B is the hydrophilization of rivaroxaban in Tablet B with the aid of the suspension process in the course of moist granulation. Neither Stamm et al. nor Straub et al. suggested the importance of hydrophilization to improve bioavailability in the absence of improvement in dissolution.

For these reasons, the claimed invention is not obvious in view of the cited art. Reconsideration of the rejection and allowance of the claims is urged.

CONCLUSION

For these reasons, allowance of the claims is respectfully requested. Alternatively, if any issues remain, the Examiner is urged to call the undersigned attorney to resolve them. Filed with this paper is authorization to charge the undersigned's credit card in the amount due for a one-month extension of time and a petition for a one-month extension of time. No further fees are believed due with the filing of this paper. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 11987- 00043-US from which the undersigned is authorized to draw.

Dated: February 1, 2010

Respectfully submitted,

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